In the Claims:

Please amend the claims as follows:

1. (currently amended) A method for non-contact determination of sought properties of an object to be measured ~~(2)~~, ~~such as, for example, its geometrical dimension or is electrical conductivity,~~ by using electromagnetic induction, ~~and wherein~~ the method comprising:

generating an electromagnetic field ~~is generated~~ in a transmitter coil ~~(3),~~ placed on one side of the object to be measured, ~~and wherein~~

detecting the magnetic field penetrating through the object to be measured ~~(2) is detected~~ by a receiver coil placed on the other side of the object ~~(2)~~ to be measured, ~~characterized by~~

placing a control coil ~~(5)~~ near the transmitter coil ~~(3)~~,

generating a change in the magnetic field of the transmitter coil ~~(3)~~,

detecting the field change in the control coil ~~(5)~~,

detecting the field change in the receiver coil ~~(4)~~,

determining the difference in time for the detection of the field change in the control coil ~~(5)~~ and in the receiver coil ~~(4)~~, respectively,

determining the time of penetration (T2) through the object ~~(2)~~ to be measured, and

determining therefrom the thickness or electrical conductivity of the object ~~(2)~~ to be measured.

2. (currently amended) ~~A~~ The method according to claim 1, ~~characterized in that~~ wherein the control coil ~~(5)~~ is located on the same side as the transmitter coil ~~(3)~~ in relation to

the object ~~(2)~~ to be measured.

3. (currently amended) ~~A~~ The method according to claim ~~1 or 2, characterized in that~~ 1, wherein the time of penetration (T2) through the object ~~(2)~~ to be measured is determined based on the time (t5) for detection of the field change in the control coil ~~(5)~~, and the time (t4) for detection of the field change in the receiver coil ~~(4)~~.

4. (currently amended) ~~A~~ The method according to ~~one or more of the preceding claims, characterized in that~~ claim 1, wherein the calculation of the delay time (T2) through the object ~~(2)~~ to be measured is equal to (t4ba+t4ab-t5aa-t5bb)/2.

5. (currently amended) ~~A~~ The method according to ~~one or more of the preceding claims, characterized in that~~ claim 1, wherein the voltage (S4) induced in the receiver coil ~~(4)~~ is measured at two different times after the magnetic field in the transmitter coil ~~(3)~~ has suddenly changed.

6. (currently amended) ~~A~~ The method according to ~~one or more of the preceding claims, characterized in that~~ claim 1, wherein the thickness or electrical conductivity of the object ~~(2)~~ to be measured is calculated on the basis of the time ~~(tt)~~ of penetration and the maximum voltage ~~(S4max)~~ induced in the receiver coil ~~(4)~~.

7. (currently amended) ~~A~~ The method according to ~~one or more of the preceding claims, characterized in that~~ claim 1, wherein the thickness or electrical conductivity of the object ~~(2)~~ to

be measured is calculated on the basis of the reciprocal value of the product of the square of the maximum voltage ~~(S4max)~~ induced in the receiver coil ~~(4)~~ and the time of penetration ~~(tt)~~.

8. (currently amended) ~~A~~ The method according to ~~one or more of the preceding claims, characterized in that~~ claim 1, wherein the voltage ~~(S4)~~ induced in the receiver coil ~~(4)~~ is integrated and that the thickness or electrical conductivity of the object ~~(2)~~ to be measured is calculated on the basis of this integrated signal ~~(S17)~~.

9. (currently amended) ~~A~~ The method according to ~~one or more of the preceding claims, characterized in that~~ claim 1, wherein the voltage ~~(S4)~~ induced in the receiver coil ~~(4)~~ is integrated and that the thickness or electrical conductivity of the object ~~(2)~~ to be measured is calculated on the basis of the value of this integrated signal at at least two different times.

10. (currently amended) A measuring device for non-contact determination of one or more sought properties of an object to be measured ~~(2)~~, ~~such as, for example, its geometrical dimension or its electrical conductivity,~~ comprising:

at least one transmitter coil ~~(3)~~ and at least one receiver coil ~~(4)~~ located spaced from each other, ~~as well as~~

means for generating a changeable magnetic field in the transmitter coil, ~~(3) and~~

means for detecting a voltage ~~(S4)~~ induced in the receiver coil ~~(4)~~, ~~characterized in that~~

a control coil ~~(5) is~~ arranged to detect a change in the magnetic field generated in the transmitter coil ~~(3)~~,

means ~~are arranged~~ to detect the difference in time between the signals ~~(S5 and S4)~~ from

the control coil ~~(5)~~ and the receiver coil ~~(4)~~ which are generated by the change in magnetic field in the transmitter coil ~~(3)~~,

means ~~(18, 19) are~~ arranged to detect the maximum voltage ~~(S4max)~~ induced in the receiver coil ~~(4)~~, and ~~that~~

means ~~are arranged~~ to calculate, from these values, the thickness or electrical conductivity of the object ~~(2)~~ to be measured.

11. (currently amended) ~~A~~ The measuring device according to claim 10, ~~characterized in that~~ wherein the control coil ~~(5)~~ is arranged on the same side of the object ~~(2)~~ to be measured as the transmitter coil ~~(3)~~.

12. (currently amended) ~~A~~ The measuring device according to claim 10 ~~and/or 11~~, ~~characterized in that~~ further comprising:

an integrator ~~(17) is arranged~~ to integrate the voltage signal ~~(S4)~~ induced in the receiver coil ~~(4)~~.

13. (currently amended) ~~A~~ The measuring device according to ~~claims 10-12,~~ ~~characterized in that~~ claim 10, further comprising:

circuits ~~(16-19) are~~ arranged to measure the voltage ~~(S4)~~ induced in the receiver coil ~~(4)~~ at two different times after the time for interruption in the transmitter coil ~~(3)~~.

14. (currently amended) A computer program product, comprising:

a computer readable medium; and

data code recorded on the computer readable medium executable by a processor for carrying out the ~~method~~ steps ~~according to any~~ of ~~claims 1-8~~

generating an electromagnetic field in a transmitter coil, placed on one side of the object to be measured,

detecting the magnetic field penetrating through the object to be measured by a receiver coil placed on the other side of the object to be measured,

placing a control coil near the transmitter coil,

generating a change in the magnetic field of the transmitter coil,

detecting the field change in the control coil,

detecting the field change in the receiver coil,

determining the difference in time for the detection of the field change in the control coil and in the receiver coil, respectively,

determining the time of penetration through the object to be measured, and

determining therefrom the thickness or electrical conductivity of the object to be measured.

15. (cancelled)

16. (currently amended) ~~A~~ The computer program according to claim 14, wherein the data code if further for carrying out the step of ~~which is~~ at least partly ~~transmitted~~ transmitting the data code via a network ~~such as, for example, the Internet~~.

17. (currently amended) Use of a device according to ~~claims 10-13~~ claim 10.

18. (new) The method according to claims 1, wherein the sought properties comprise a geometrical dimension of the object or an electrical conductivity of the object.

19. (new) The measuring device according to claim 10, wherein the properties to be measured comprise a geometrical dimension or an electrical conductivity of the object.